AMENDMENT NO. 1 OCTOBER 2018
TO
IS 2386 (PART 3) : 1963 METHODS OF TEST FOR AGGREGATES FOR CONCRETE

PART 3 SPECIFIC GRAVITY, DENSITY, VOIDS, ABSORPTION AND BULKING

(*Page* 6, *clause* **2.2.4**) — Substitute the following for the existing clause:

“**2.2.4** *Calculations*

Specific gravity, specific gravity based on saturated surface dry weight (*see* Note), apparent specific gravity and water absorption shall be calculated as follows:

$$\text{Specific gravity based on dry aggregate} = \frac{C}{B - A}$$

$$\text{Specific gravity based on saturated surface dry weight} = \frac{B}{B - A}$$

$$\text{Apparent specific gravity} = \frac{C}{C - A}$$

$$\text{Water absorption (percentage of dry weight)} = \frac{100\,(B - C)}{C}$$

where

A = weight of the saturated aggregate in water ($A_1 - A_2$), in g;

B = weight of the saturated surface dry aggregate in air, in g; and

C = weight of oven dried aggregate in air, in g.

NOTE — This value of specific gravity based on SSD condition may be adopted for calculations for mix design as per IS 10262 : 2009 ‘Concrete mix proportioning — Guidelines (*first revision*)’.”

(*Page* 8, *clause* **2.3.4**) — Substitute the following for the existing clause:

"**2.3.4** *Calculations*

Specific gravity, specific gravity based on saturated surface dry weight (*see* Note), apparent specific gravity and water absorption shall be calculated as follows:

$$\text{Specific gravity based on dry aggregate} = \frac{D}{C - (A - B)}$$

$$\text{Specific gravity based on saturated surface dry weight} = \frac{C}{C - (A - B)}$$

$$\text{Apparent specific gravity} = \frac{D}{D - (A - B)}$$

$$\text{Water absorption (percentage of dry weight)} = \frac{100\,(C - D)}{D}$$

where

A = weight of the vessel containing sample and filled with distilled water, in g;

B = weight of the vessel filled with distilled water only, in g;

C = weight of the saturated surface-dry sample, in g, and

D = weight of oven-dry sample, in g.

NOTE — This value of specific gravity based on SSD condition may be adopted for calculations for mix design as per IS 10262 : 2009 'Concrete mix proportioning — Guidelines (*first revision*)'."

(*Page* 11, *clause* **2.4.3**) — Substitute the following for the existing clause:

"**2.4.3** *Calculations*

Specific gravity, specific gravity based on saturated surface dry weight (*see* Note), apparent specific gravity and water absorption shall be calculated as follows:

$$\text{Specific gravity based on dry aggregate} = \frac{D}{A-(B-C)}$$

$$\text{Specific gravity based on saturated surface dry weight} = \frac{A}{A-(B-C)}$$

$$\text{Apparent specific gravity} = \frac{D}{D-(B-C)}$$

$$\text{Water absorption (percentage of dry weight)} = \frac{100\,(A-D)}{D}$$

where

A = weight of the saturated surface-dry sample, in g;
B = weight of the pycnometer or gas jar containing sample and filled with distilled water, in g;
C = weight of the pycnometer or gas jar filled with distilled water only; and
D = weight of oven-dry sample, in g.

NOTE — This value of specific gravity based on SSD condition may be adopted for calculations for mix design as per IS 10262 : 2009 'Concrete mix proportioning — Guidelines (*first revision*)'."

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